CLAIM AMENDMENTS

27. (Currently amended) A method of making a hybrid photoactive device including:

(a) providing photosynthetic chlorosome-containing bacteria Chloroflexus aurantiacus,

(b) extracting the RC^- chlorosomes [[RC^-]] from the bacteria,

(c) providing a photoactive semiconductor, and

(d) locating the RC^- chlorosomes proximate a light receiving surface of the photoactive semiconductor, wherein step (c) includes providing a photoactive semiconductor having a light response that is diminished at a first range of light wavelengths, and step (a) comprises choosing a RC^- chlorosome having

(i) light response that is enhanced at a second range of light wavelengths that coincides, at least in part, with the first range of light wavelengths, and

(ii) light emission outside the first range of light wavelengths, and wherein choosing a RC^- chlorosome comprises force adapting bacteria with chlorosomes with the light response enhanced at the second range of light wavelengths and light emission outside the first range.

28. (Currently amended) The method according to claim 27, wherein force adapting comprises:

(a) design of experiment determination of environmental factors forcing adaptation of the C. aurantiacus bacteria based upon multiple environmental variables applied to sample C. aurantiacus bacteria, and

(b) exposing the C. aurantiacus bacteria to an environment in which these factors identified in the previous step are present to force adapt them.